

# EUROPEAN PATENT OFFICE

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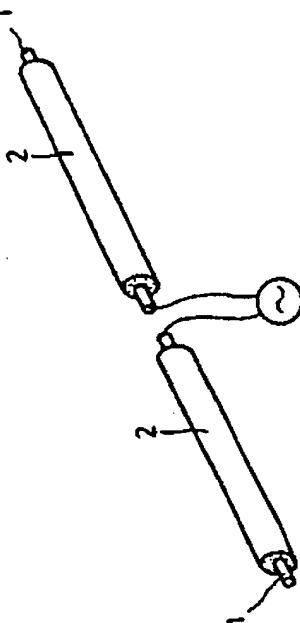
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TITLE : ANTENNA



**ABSTRACT :** PURPOSE: To miniaturize a wave transmitter-receiver and to improve the weather resistance and to improve the reception sensitivity by providing a magnetic power compounded layer on the outer circumference of the wave transmitter- receiver.

CONSTITUTION: A magnetic powder mixed plastic layer 2 is provided at the outer circumference of a wave transmitter-receiver 1 made of a conductor. The magnetic powder mixed plastic layer 2 is formed cylindrical in advance, the wave transmitter-receiver 1 is inserted to the hole to provide the layer 2 on the wave transmitter-receiver 1. Then the magnetic powder mixed plastic layer 2 acts equivalently like a distribution inductance on the wave transmitter- receiver 1 to prolong the length of the wave transmitter-receiver 1 substantially. Thus, the length of the wave transmitter-receiver 1 is reduced and since the magnetic powder mixed plastic layer 2 absorbs a radio wave, the reception sensitivity is improved and since the wave transmitter-receiver 1 is coated by the magnetic powder mixed plastic layer 2 and not exposed, the weather resistance is improved.

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